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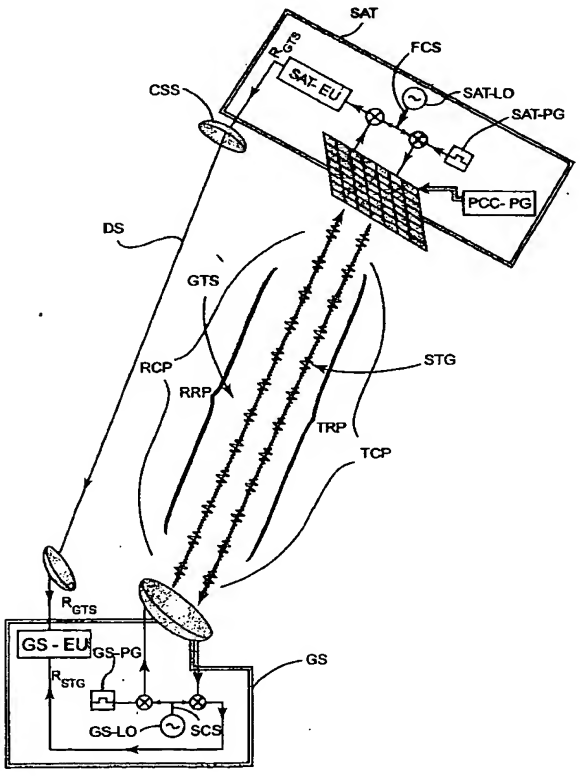
(54) Title: PULSE-CODED REMOTE CALIBRATION OF AN ACTIVE PHASED ARRAY SYSTEM



(57) Abstract: A method for remotely calibrating an active phased array system, and more particularly an antenna, (APA), used in transmission and/or in reception, comprising transmitting and/or receiving a set of calibration pulses (RCP, TCP). Contrarily to methods known from the prior art, in which a reference signal is transmitted together with the calibration pulses in order to be able to perform a coherent detection of the calibration pulses at a remote station (GS), the method of the invention comprises incoherent demodulation of the calibration pulses and use of a signal processing procedure to account for the phase noise and amplitude fluctuations resulting from said incoherent demodulation. The method of the invention is particularly well suited for space applications, in which the active phased array system is an active phased array (APA) carried by a satellite (SAT) and the remote station (when it is present) is a ground station (GS).

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